

What is claimed is:

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1 1. A thermokeratoplastic probe system, comprising:
2 a first electrode;
3 a power source coupled to said first electrode; and,
4 a lid speculum that provides a return path for said
5 first electrode.

1 2. The system as recited in claim 1, wherein said lid
2 speculum is coupled to said power source by a wire.

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1 3. The system as recited in claim 1, wherein said first
2 electrode has a tip which has a first step that extends from
3 a base portion, said first step having a smaller outer
4 dimension than said base portion.

1 4. The system as recited in claim 3, wherein said first
2 step has a point.

1 5. The system as recited in claim 3, wherein said first
2 step has a flat end.

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1 6. The system as recited in claim 3, wherein said first
2 electrode has a second step that extends from said first
3 step, said second step having a smaller outer dimension than
4 said outer dimension of said first step.

1 7. The system as recited in claim 1, wherein said first
2 electrode is separated from a second electrode by an outer
3 layer of insulative material.

1 8. The system as recited in claim 7, wherein said first
2 electrode extends beyond said second electrode.

1 9. The system as recited in claim 7, wherein said
2 second electrode separates said first electrode from an outer
3 sleeve which has an internal fluid passage.

1 10. A thermokeratoplastic probe, comprising:
2 a first electrode that has a first step that extends
3 from a base portion, wherein said first step has an outer
4 dimension that is smaller than an outer dimension of said
5 base portion.

1 11. The probe as recited in claim 10, wherein said
2 first step has a point.

1 12. The probe as recited in claim 10, wherein said
2 first step has a flat end.

1 13. The probe as recited in claim 10, further
2 comprising a second step that extends from said first step,
3 said second step having an outer dimension that is smaller
4 than said outer dimension of said first step.

1 14. The probe as recited in claim 10, further
2 comprising a second outer electrode that is separated from
3 said first electrode by a layer of insulative material.

1 15. The probe as recited in claim 14, further
2 comprising a sleeve that has an internal fluid passage.

1 16. A thermokeratoplastic probe, comprising:
2 a first electrode that is separated from a second
3 electrode by a layer of insulative material.
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1 17. The probe as recited in claim 16, further
2 comprising a sleeve that has an internal fluid passage.

1 18. The probe as recited in claim 16, wherein said
2 first electrode extends beyond said second electrode.

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1 19. A thermokeratoplastic probe that is coupled to a
2 source of power, comprising:
3 an electrode coupled to the source of power;
4 a fuse coupled to said electrode, said fuse preventing
5 power from being supplied to said electrode when in an open
6 condition; and,
7 an electrical circuit that opens said fuse after power
8 is supplied to said electrode.

1 ~~11~~¹⁰ 20. The probe as recited in claim ~~19~~¹⁰, further
2 comprising a sample unit which samples a plurality of fuses
3 to determine how many fuses are in the open condition.

1 21. A method for denaturing a cornea, comprising the
2 steps of:
3 a) placing a probe into contact with the cornea, said
4 probe having a pair of electrodes;
5 b) energizing one of said electrodes with electrical
6 power; and,
7 c) energizing ~~the~~ other electrode with electrical
8 power.

1 22. The method as recited in claim 21; wherein
2 electrical power is simultaneously supplied to said
3 electrodes.

1 23. The method as recited in claim 21, wherein the
2 electrical power supplied to one electrode has a different
3 frequency than the electrical power supplied to the other
4 electrode.

1 24. The method as recited in claim 21, wherein the
2 electrical power supplied to one electrode has a different
3 power level than the electrical power supplied to the other
4 electrode.